

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

22. (original) A foldable member comprising:

at least a first tube made of layers of material;

at least one predetermined hinge area along the length of the first tube; and

a plurality of opposing elongated slots in the tube through the layers of

material forming separated longitudinal strips of layers of tube material between

the slots which fold when subjected to localized buckling forces.

23. (original) The foldable member of claim 22 in which first tube includes a sheet of plastic material wrapped around itself several times forming the layers of tube material.

24. (original) The foldable member of claim 23 further including an adhesive securing the layers of plastic material to each other at selected locations along the length of the tube.

25. (original) The foldable member of claim 24 in which the adhesive is a tape.

26. (original) The foldable member of claim 24 in which the sheet of plastic material comes from a roll of plastic stock material and has a round memory.

27. (original) The foldable member of claim 22 in which the layers of material are

laminated to each other except at the predetermined hinge area.

28. (previously presented) A foldable member of claim 22 in which there are a plurality of opposing sets of slots.

29. (previously presented) The foldable member of claim 28 in which there are at least four slots, one set of two slots opposing another set of two slots.

30. (previously presented) A foldable member comprising:

at least a first tube made of layers of material;

at least one predetermined hinge area along the length of the first tube; and

opposing sets of elongated slots in the tube at the hinge area

thereof forming separated longitudinal strips of tube material between the
slots which fold when subjected to localized buckling forces,

each slot of each set of elongated slots separated longitudinally along the length of the
tube from each adjacent slot by a bridge element of tube material.

31. (previously presented) The foldable member of claim 30 in which the opposing sets
of elongated slots are diametrically opposed from each other on the tube.

32. (previously presented) The foldable member of claim 30 in which each slot in each
set of slots is diametrically opposed from a slot in the opposing set of slots.

33. (previously presented) The foldable member of claim 30 in which there are two sets of slots.

34. (previously presented) The foldable member of claim 33 in which there are two slots in each set of slots.

35. (previously presented) The foldable member of claim 30 in which there are two sets of slots and two slots in each set.

36. (previously presented) The foldable member of claim 30 in which there is a stress relieving member attached to each bridge element on the inside of the tube.

37. (previously presented) The foldable member of claim 30 in which the tube is made of a plastic material.

38. (previously presented) The foldable member of claim 30 in which the tube is made of a composite material.

39. (previously presented) The foldable member of claim 38 in which the composite material includes a triaxial braid of fibers in a resin matrix.

40. (previously presented) The foldable member of claim 30 in which there are a

plurality of hinge areas spaced from each other along the length of the tube, each hinge area including opposing sets of elongated slots.

41. (previously presented) The foldable member of claim 30 further including an electrical conductor disposed in the tube.

42. (previously presented) The foldable member of claim 30 further including at least one transducer device located proximate a hinge area for controlling the folding of the longitudinal strips of tube material.

43. (previously presented) The foldable member of claim 40 further including slot reinforcing members disposed in the slots.

44. (previously presented) The foldable member of claim 40 in which the elongated slots are triangle shaped.

45. (previously presented) The foldable member of claim 40 in which the elongated slots are diamond shaped.

46. (previously presented) The foldable member of claim 40 in which there are four slots in each set of slots, each slot of a pair of the four slots opposing another slot.

47. (previously presented) The foldable member of claim 40 in which each slot has a

reduced diameter portion.

48. (previously presented) The foldable member of claim 40 further including a second tube disposed inside the first tube.

49. (previously presented) The foldable member of claim 48 in which the second tube includes opposing sets of elongated slots at the hinge area thereof.

50. (previously presented) A collapsible structure comprising:

a plurality of joined members;

a selected number of said members each including:

a tube made of layers of material;

at least one predetermined hinge area along the length of the tube; and

a plurality of opposing elongated slots in the tube at the hinge area thereof forming separated longitudinal strips of tube material between the slots which fold when subjected to localized buckling forces.

51. (previously presented) The structure of claim 50 in which there are opposing sets of elongated slots; each slot of each set of elongated slots separated longitudinally along the length of the tube from each adjacent slot by a bridge element of tube material.

52. (previously presented) A foldable member comprising:

at least a first tube made of layers of material;
at least one predetermined hinge area along the length of the first tube; and
a plurality of opposing sets of elongated slots in the tube through the
layers of material forming separated longitudinal strips of layers of tube material
between the slots which fold when subjected to localized buckling forces.

53. (previously presented) The foldable member of claim 52 in which first tube includes a sheet of plastic material wrapped around itself several times forming the layers of tube material.

54. (previously presented) The foldable member of claim 53 further including an adhesive securing the layers of plastic material to each other at selected locations along the length of the tube.

55. (previously presented) The foldable member of claim 54 in which the adhesive is a tape.

56. (previously presented) The foldable member of claim 54 in which the sheet of plastic material comes from a roll of plastic stock material and has a round memory.

57. (previously presented) The foldable member of claim 52 in which the layers of material are laminated to each other except at the predetermined hinge area.

58. (previously presented) A foldable member comprising:

- at least a first tube made of layers of material;
- at least one predetermined hinge area along the length of the first tube; and
- opposing elongated slots in the tube at the hinge area thereof
- forming separated longitudinal strips of tube material between the slots
- which fold when subjected to localized buckling forces.

59. (previously presented) The foldable member of claim 58 in which there are opposing sets of elongated slots, each slot of each set of elongated slots separated longitudinally along the length of the tube from each adjacent slot by a bridge element of tube material.

60. (previously presented) The foldable member of claim 58 in which first tube includes a sheet of plastic material wrapped around itself several times forming the layers of tube material.

61. (previously presented) The foldable member of claim 60 further including an adhesive securing the layers of plastic material to each other at selected locations along the length of the tube.

62. (previously presented) The foldable member of claim 61 in which the adhesive is a tape.

63. (previously presented) The foldable member of claim 61 in which the sheet of plastic material comes from a roll of plastic stock material and has a round memory.

64. (previously presented) The foldable member of claim 58 in which the layers of material are laminated to each other except at the predetermined hinge area.

65. (previously presented) A foldable member comprising:

at least a first tube made of layers of material;

at least one predetermined hinge area along the length of the first tube; and

a plurality of opposing elongated slots in the tube through the layers of material and separated longitudinal strips between the slots which fold when subjected to localized buckling forces.

66. (previously presented) A foldable member comprising:

at least a first tube made of layers of material;

at least one predetermined hinge area along the length of the first tube; and

opposing sets of elongated slots in the tube at the hinge area thereof and separated longitudinal strips between the slots which fold when subjected to localized buckling forces,

each slot of each set of elongated slots separated longitudinally along the length of the tube from each adjacent slot by a bridge element.

67. (previously presented) A collapsible structure comprising:

- a plurality of joined members;
- a selected number of said members each including:
 - a tube made of layers of material;
 - at least one predetermined hinge area along the length of the tube; and
- a plurality of opposing elongated slots in the tube at the hinge area thereof and separated longitudinal strips between the slots which fold when subjected to localized buckling forces.

68. (previously presented) A foldable member comprising:

- at least a first tube made of layers of material;
- at least one predetermined hinge area along the length of the first tube; and
- a plurality of opposing sets of elongated slots in the tube through the layers of material and separated longitudinal strips between the slots which fold when subjected to localized buckling forces.

69. (previously presented) A foldable member comprising:

- at least a first tube made of layers of material;
- at least one predetermined hinge area along the length of the first tube; and
- opposing elongated slots in the tube at the hinge area thereof and separated longitudinal strips between the slots which fold when subjected to localized buckling forces.

70. (previously presented) foldable member comprising:

at least a first tube made of layers of material;

at least one predetermined hinge area along the length of the first tube; and

a plurality of opposing separated multi-ply longitudinal strips between

slots at the hinge area which fold when subjected to localized buckling forces.

71. (previously presented) A collapsible structure comprising:

a plurality of joined members;

a selected number of said members each including:

a tube made of layers of material;

at least one predetermined hinge area along the length of

the tube; and

a plurality of opposing separated multi-ply longitudinal strips between

slots in the tube at the hinge area which fold when subjected to localized buckling forces.